

scaffolds

Update on Pest Management
and Crop Development

F R U I T J O U R N A L

August 1, 2016

VOLUME 25, No. 20

Geneva, NY

LATE ARRIVALS

ORCHARD
RADAR
DIGEST



❖❖ Geneva Predictions:

Codling Moth

Codling moth development as of August 1: 2nd generation adult emergence at 63% and 2nd generation egg hatch at 24%.

2nd generation 30% CM egg hatch: August 3 = target date where one spray needed to control 2nd generation CM.

White Apple Leafhopper

2nd generation WAL found on apple foliage: August 3.

preventive spray if necessary. Options include: Imidan, Assail, Altacor, Avaunt, Delegate, Exirel, Endigo, Leverage, Voliam Xpress.

Internal Lepidoptera

Healthy adult numbers are being seen in traditional high-pressure blocks; 2nd brood codling moth egg hatch is in progress, and the 3rd flight of oriental fruit moth is due to start soon, if it hasn't already. Recommended options in apples include Altacor, Assail, Belt, Delegate, Exirel, or Voliam Xpress. In peaches, you can use Altacor, Assail, Delegate, or Voliam Xpress. Pyrethroids and OPs may be less suitable because

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WE REPEAT

STILL ON THE BURNER
(Art Agnello, Entomology,
Geneva; ama4@cornell.edu)

❖❖ As harvest preparations are being made, it's worth keeping in mind the late season arthropod pests that can still pop up and complicate life during the hot and dry days of August. Take some time to ensure that your pest management program is not overlooking the following potential problems during this period:

Apple Maggot

We typically get the highest trap captures during the first week of August, and have been catching increasing numbers in our network traps in Wayne Co. Monitor your traps carefully this week, and be ready to apply a

SUMMER BREAK

Scaffolds will not be published on **August 8 or 15**, as the editor will be travelling out of the country with limited email access. A brief text-only note *may* be possible during this period (but can't be guaranteed). The next regular issue will be **August 22**.

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- ❖ IPM Climate & Weather Conference
- ❖ Cornell Fruit Pest Control Field Day

UPCOMING PEST EVENTS

TRAP CATCHES

of locally resistant populations. This is also a suitable time for Cyd-X or Carpovirusine granulosus virus applications against codling moth, or Madex HP against both OFM and codling moth.

European Corn Borer

This late season moth can be active until the middle of September, so larvae can be a threat particularly to later varieties. Delegate is a good option for control, and 1-2 sprays of a B.t. product can also be a useful alternative.

Mites

Our high temperatures and dry conditions are very likely to promote flare-ups of mites, especially two-spots, and are not so favorable for predacious mites. The 7.5 mites/leaf threshold (sampling chart on p. 75 in the Recommends) would apply at this point in the season. There are several good rescue materials available, if needed; check the acaricide efficacy table on p. 64 of the Recommends for ratings against TSSM vs. ERM.

Woolly Apple Aphids

Colonies in the canopy are still present and increasing. It's probably too late for a Moven-to application to be effective, but Assail (plus a non-ionic surfactant) or Admire Pro could be of use. For fruit not intended for European markets, baby food, or any of the eco/sustainable fruit program buyers, Diazinon remains the best option on the market.

San Jose Scale

This old-timer refuses to fade away, and together with white Prunicola scale, represents an increasing challenge to fruit quality during the late summer. Esteem and Centaur are the go-to choices for problem blocks; for more moderate pressure situations, Assail or Admire Pro (as noted for WAA above) are appropriate and will serve double duty if they're already being used for apple maggot and/or leafhoppers, etc. ❖❖

**DOCK
IN PAY**

OUT OF THE WEEDS
(Art Agnello, Entomology,
Geneva; ama4@cornell.edu)

❖❖ The dock sawfly always creeps in during this general period of the season. Following is a rerun of our annual write-up on this pest:

Before and during apple harvest in recent years, a number of growers and fieldmen are sometimes unpleasantly surprised by the appearance of neat little (2 mm) holes bored into the side of their fruit, similar in appearance to those caused by a stem puncture. Although graders sometimes attribute this damage to apple maggot or European corn borer, cutting open these apples reveals a bright green worm with a light brown head, 3 pairs of true legs and 7 pairs of prolegs, not feeding but lying inactive, in the burrow extending in from each hole. These are larvae of the dock sawfly, *Ametastegia glabrata*, a highly sporadic but nonetheless well documented apple pest that has been known to show up in our area since 1908.

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scaffolds FRUIT JOURNAL
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<http://www.scaffolds.entomology.cornell.edu/index.html>

Dock sawfly probably confines its feeding almost entirely to plants belonging to the buckwheat family (Polygonaceae), including numerous docks and sorrels, the knotweeds and bindweeds, or else wild buckwheat or alfalfa. In feeding on any of these plants, the larvae devour the leaf tissue and the smaller veins, eating out irregular holes in the leaves. Ordinarily, the midribs and the larger veins are untouched. This insect should not be confused with the related European apple sawfly, *Hoplocampa testudinea*, which has a whitish larva that lives and feeds in young apples, particularly prevalent in the eastern apple regions of N.Y.



Injury to apples by the dock sawfly is known to occur generally in the late summer and early fall, when the fruit is approaching maturity and the sawfly is searching for an overwintering site. The greater hardness of immature apples probably deters the larvae from burrowing into these, so although 4 generations per year have been identified, only the last one or two are of concern to apple growers. The injury to apples consists externally of the small round holes bored by the larvae, which after a few days show a slightly sunken, brownish ring around them and occasionally may be surrounded by a larger discolored halo. These holes may occur anywhere on the surface, but are most numerous around the calyx and stem ends, or at a

point where the apple touches a leaf or another apple, since it is easier for the larva to obtain a foothold here. Inside, the injury is usually more serious, since the larva often burrows to the core and usually hollows out a pupal cell somewhat larger than itself. Apples may have three or four, or sometimes even eight, holes in them of varying depths, but contain only one or two worms.

Since the dock sawfly does not feed upon any part of the apple tree, but must live on the above-mentioned succulent weeds, it becomes an apple pest only where these plants are growing in or around the orchard. There is little danger from this insect in orchards where the food plants don't exist. Likewise, the possibility of the larvae coming into the orchard from neighboring meadows, ditch banks, or roadsides is slight, for the larvae are incapable of finding their way over any extent of bare soil. The adults, though active, are not strong fliers, and it is not possible for the insect to travel far in this stage. Now would be a good time to assess the weed situation in your orchard and make plans for such selective herbicide applications as may be appropriate regarding this insect. Even though common wisdom says this sawfly is a pest only every 10–12 years, this is only an average estimation, and it's not a bad idea to anticipate the unexpected when hardly any season is considered to be "average". ❖❖

(Information adapted from Newcomer, E. J. 1916. The dock false-worm: An apple pest. USDA Bull. 265, 40 pp.)

WAYNE COUNTY FRUITGROWER TOUR
 Wednesday, August 3, from 9:00 am
 Registration and 1st stop at MackQuinLe
 Farms, Norris Rd/Rte 104, North Rose, NY
 (GPS: N 43.204284, W 76.933619)

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 18th year, and will feature presentations on Gala production (orchard fertility & PGR use), fire-blight control, weed control, crop nutrient and biostimulant programs for new apple plantings and processing apple varieties, apple scab alerts, plus much more. Door prizes, lunch, some droll humor, a BBQ/clambake dinner with a live band, growers and industry representatives from NY and surrounding states — always a great way to spend a midsummer day. Free attendance.

Contact Lindsay LaMora (585-734-8904; lindsaylamora@agrassistance.com) for RSVP pre-registration and tour information.

SPANISH-SPEAKING FRUIT SUMMER TOUR IN WAYNE CO.

Saturday, August 13, 1:00-6:30 pm

The CCE LOF team is organizing its second Fruit Summer Tour for Spanish-speaking farmers and employees, to be held in Wayne County from 1:00 pm until 6:30 pm on Saturday, August 13, 2016. At each of the 4 tour stops, participants will be hosted by a Spanish-speaking farmer or employee who has significant orchard experience by managing a modern apple orchard and/or a nursery operation. The tour will cover aspects related to orchard establishment, training, pruning, pest management, orchard mechanization, tractor safety, on-farm nursery production, and fruit quality at harvest. The tour is FREE for your employees, but pre-registration is required by Wednesday, August 10. For more information (including the full program) and registration, see: <http://lof.cce.cornell.edu/event.php?id=573>

IPM CLIMATE & WEATHER CONFERENCE

Monday, August 15, 8:30 am to 4:15 pm
 Albany CCE, 24 Martin Rd, Voorheesville, NY 12186

"Climate, Weather, Data: Protecting Our Crops and Landscapes". Because space is limited, pre-register on the [Registration page](#). Pre-registration closes on August 10. The [Climate, Weather, Data portal](#) has maps, an agenda and registration details. If you have questions, call Amanda Grace at arw245@cornell.edu or 315-787-2208. Cost is \$45, which includes lunch, breaks and materials. Yes, get DEC credits, too!

With all the talk about climate change, you might be wondering how it will affect food production, pests, and even landscapes—and what you can do about it. This is definitely a year when weather changes have affected our crops – from the Valentine’s Day massacre winter freeze to plant life gasping for water. Come and learn how gathering information on weather and climate can help growers, gardeners and landscapers plan for changes. Find details on [The Climate and Weather Conference webpage](#).

We are honored that Richard Ball, the Commissioner of the New York State (NYS) Department of Agriculture and Markets, will kick off the conference with opening remarks. A wide variety of speakers from NYS and the Northeast will provide background information on the current state of knowledge on climate change and changes in our weather patterns, and how collecting climate and weather data can help us predict and manage pests. Open discussion sessions are included so you can ask your own questions. Join us to learn and discuss! Agenda can be [accessed on the Climate and Weather Conference webpage!](#)

CORNELL FRUIT PEST CONTROL FIELD DAY

The N.Y. Fruit Pest Control Field Day will take place during Labor Day week on Sept. 7 this year, with the Geneva portion taking place on Wednesday Sept. 7; no information is available yet about a Hudson Valley component. Activities will commence with registration, coffee, etc., in the lobby of Barton Lab at 8:30 am. The tour will proceed to the orchards to view plots and preliminary data from field trials involving new fungicides, bactericides, miticides, and insecticides on tree fruits and grapes. It is anticipated that the tour of field plots will be completed by noon. No pre-registration is required.



INSECT TRAP CATCHES						
(Number/Trap)						
Geneva, NY				Highland, NY		
	<u>7/25</u>	<u>7/28</u>	<u>8/1</u>		<u>7/25</u>	<u>8/1</u>
Redbanded leafroller	11.0	2.5	0.0	Redbanded leafroller	3.5	6.0
Spotted Tentiform Leafminer	31.0	26.5	112.0	Spotted Tentiform Leafminer	151.0	132.0
Oriental Fruit Moth	0.0	0.0	4.5*	Oriental Fruit Moth	1.5	6.5
Codling Moth	24.0	5.0	8.0	Lesser Appleworm	9.0	15.5
American Plum Borer	0.0	0.0	0.0	San Jose Scale	3696	70.0
Lesser Peachtree Borer	0.0	1.0	0.0	Codling Moth	52.0	61.0
Obliquebanded Leafroller	0.0	0.0	0.0	Obliquebanded Leafroller	10.0	14.0
Pandemis Leafroller	0.0	0.0	0.0	Dogwood Borer	2.5	6.5
Dogwood Borer	0.0	1.0	0.0	Brown Marmorated Stink Bug	0.0	0.0
Peachtree Borer	0.5	0.5	4.0	Apple Maggot	7.8	11.0
Apple Maggot	0.7	0.3	3.3			

* = 1st catch

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–8/1/16):	2302.8	1560.3
(Geneva 1/1–8/1/2015):	2166.1	1472.1
(Geneva "Normal"):	2308.2	1563.8
(Geneva 1/1-8/8, predicted):	2517.3	1725.8
(Highland 1/1–8/1/16):	2792.1	1920.5

<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Apple maggot peak flight	2116-2646	1419-1831
American plum borer 2nd flight peak	2005-2575	1351-1777
Codling moth 2nd flight peak	1959-2709	1302-1874
Comstock mealybug 2nd gen crawlers emerging	2234-2624	1505-1781
Comstock mealybug 2nd gen crawlers peak	2380-2624	1658-1737
Lesser appleworm 2nd flight peak	2154-3098	1440-2150
Obliquebanded leafroller 2nd flight start	2228-2634	1499-1821
Oriental fruit moth 3rd flight start	2271-2833	1539-1967
Peachtree borer flight subsides	2478-3126	1672-2180
Redbanded leafroller 2nd flight subsides	2161-2721	1456-1876
San Jose scale 2nd flight peak	2137-2493	1440-1742
STLM 3rd flight start	2259-2641	1515-1833
White apple leafhopper 1st brood adults subside	2195-2521	1564-1792

all DDs Baskerville-Emin, B.E.

NOTE: Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are possible. These recommendations are not a substitute for pesticide labelling. Please read the label before applying any pesticide.

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